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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,161	12/18/2001	Kazuya Suzuki	0229-0681P	9259

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EXAMINER

KNABLE, GEOFFREY L

ART UNIT PAPER NUMBER

1733

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/020,161	SUZUKI, KAZUYA	
	Examiner	Art Unit	
	Geoffrey L. Knable	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1 and 3-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 17+, reference is made to a “radially innermost strip” and a “radially outermost strip” – this however raises some potential for confusion as the strip is not yet wound and thus there is no clear radial direction. It would seem that this may be in reference to the configuration when wound around the drum but clarifying language to this effect is needed to avoid this ambiguity. An analogous ambiguity is presented in claim 9.

At line 25 of claim 1, the phrase “to each other by butt joint the first...” is grammatically awkward and confusing. It seems that “joint” should be for example “jointing” to avoid this ambiguity. An analogous ambiguity is present at the analogous location in new claim 9.

Claim 18 is identical to claim 17 from which it depends – it seems that this may have been intended to depend from claim 16.

2. Claim 18 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Note again that claim 18 is identical to claim 17 and thus does not further limit claim 17.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 3, 6, 7, 9, 11, 13, 14, 15, 19, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumagai (US 4,875,959) taken in view of Minami et al. (US 5,688,343) and/or Smithkey, Jr. (US 3,657,039) and further in view of Sergel et al. (US 5,582,664 – newly cited).

These references are applied for substantially the same reasons as set forth in the last office action. Claim 1 has been amended to now define formation of a layered structure, which layered structure is wound on a drum as well as butt-jointing the ends. However, Kumagai clearly is forming a layered structure prior to winding on a drum. As to the formation of a butt-joint, Kumagai does not provide specific details of the jointing but does suggest that the layers have a length corresponding to the drum length (col. 4, lines 52-55) and that the ends are joined (col. 6, lines 33-39) – this would seem to be suggesting that a butt joint be formed. Further, even if not considered implicit, it would have been obvious to form a butt-joint in the layers in light of the above noted suggestions in the reference coupled with the fact that butt-jointing tire materials is well known in this art and further has well known advantages in terms of avoiding material build-up – note for example col. 1, lines 28+ of Sergel et al. Claim 9 is rejected for the same reasons as claim 1, the additional reference to “lengths” in claim 9 being implicit in the Kumagai teachings, it being clear that the lengths of materials are (would have to be) being selected or allotted as claimed. Claim 11 is rejected for the same reasons of record with respect to claim 3. As to new claims 13-15 and 19-21 further restricting the

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angles alpha and beta, Kumagai does not describe numerical ranges for these angles but the reference first clearly desires a significant stagger in the joints. Further, figures 1-4 of Kumagai would have provided general guidance to the artisan in terms of what degree of joint shift was contemplated, it being considered that the ordinary artisan, following the guidance provided in these depictions, would have found it obvious to provide the angle differences above the claimed 15 degree lower limit for alpha and below the 90 degree limit for beta.

5. Claims 1, 3, 4, 6, 7-9, 11-15 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riggs (US 4,276,104) taken in view of Costemalle et al. (US 5,376,438).

These references are applied for substantially the same reasons as set forth in the last office action. Claim 1 has been amended to now define formation of a layered structure, which layered structure is wound on a drum as well as butt-jointing the ends. However, Riggs clearly is forming a layered structure prior to winding on a drum and further, Riggs suggests that the ends are abutted (col. 4, lines 46-50). New claim 9 is rejected for the same reasons as claim 1, the additional reference to "lengths" in claim 9 being implicit in the Riggs teachings, it being clear that the lengths of materials are (would have to be) being selected or allotted as claimed. As to claims 8 and 12, the strips decrease in width radially outward at least in fig. 2. Claim 11 is rejected for the same reasons of record with respect to claim 3. As to new claims 13-15 and 19-21 further restricting the angles alpha and beta, Riggs does not describe numerical ranges for these angles but the reference first clearly desires a significant stagger in the joints.

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Further, figures 1-4 of Riggs would have provided general guidance to the artisan in terms of what degree of joint shift was contemplated, it being considered that the ordinary artisan, following the guidance provided in these depictions, would have found it obvious to provide the angle differences above the claimed 15 degree lower limit for alpha and below the 90 degree limit for beta. In particular, it is noted that as depicted, Riggs would suggest a shift of slightly less than about 1/8 of the drum circumference (fig. 4) which would correspond with slightly less than 45 degrees (note also that the depicted shift relative to the larger transfer drum (fig. 3) is about 1/16 (or about 22 degrees), this being entirely consistent with the above finding). The general guidance provided by these depictions would thus suggest angles slightly less than 45 degrees but certainly larger than 22 degrees. Following the guidance provided by this reference and particularly the general guidance provided by these figures, it is submitted that the artisan would have found it obvious to provide angles well within the claimed limits.

6. Claim 7 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deist (US 3,223,573).

Deist is applied for the same reasons as set forth in the last office action. The rejection of the method claims over this reference has been withdrawn as Deist does not teach making a layered structure, which is then wound since the layers are individually wound. However, the rejection has been maintained for the tire claims as it is not considered that whether the strips are wound individually and jointed or alternatively layered and then wound, would result in a materially different product. As to the new requirement that the joint be a butt joint, it is clear that Deist contemplates

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butt joints – e.g. note col. 1, lines 65-66 and col. 2, line 27. As to new dependent claims 19-21, it is submitted that a degree shift of greater than 15 degrees would have been obvious to ensure that sufficient space is provided between the joints, the upper limit on angle beta also being within the selection of the artisan guided by the reference teachings to assure that any heavy build-up at any particular point is avoided – in other words, any spacing up to the maximum would have been obvious and lead to only the expected results.

7. Claims 7 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ragan (US 3,472,714) taken in view of Deist (US 3,223,573) and optionally further in view of Montagne (US 3,907,019).

These references are applied for the same reasons as set forth in the last office action. The rejection of the method claims over these references has been withdrawn as Ragan does not teach making a layered structure, which is then wound, since the layers are individually wound. However, the rejection has been maintained for the tire claims as it is not considered that whether the strips are wound individually and jointed or layered and then wound, would result in a materially different product. As to the new requirement that the joint be a butt joint, it is considered that the suggestion that the layers be “end joined” in Ragan (e.g. col. 3, lines 64+) would suggest a butt joint as claimed. As to new dependent claims 19-21, stagger within the claimed limits is considered obvious for the same reasons set forth in the previous paragraph with respect to Deist.

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8. Claims 1, 5-7, 9, 10 and 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harsel (US 1,406,855) taken in view of Deist (US 3,223,573) and at least one of Kumagai (US 4,875,959) and Riggs (US 4,276,104) .

Harsel and Deist are applied for substantially the same reasons as set forth in the last office action. The claims were amended to require that the strips were first made into a layered structure and then wound on a drum where the ends were connected in a butt joint. Harsel does disclose forming a layered structure for the filler/apex (note esp. "43" in fig. 4) prior to winding, it being considered obvious to form staggered joints in light of Deist as noted in the last office action. Kumagai and Riggs (both previously described) are cited to further show the known and conventional expedient in this art of layering strips in such a manner that they will have a staggered joint when wound. Such would have been instructive to the artisan in developing a manner to form a layered structure that will have a staggered joint when finally wound as now claimed. The newly claimed narrower angle ranges would have been obvious following the Deist, Kumagai and Riggs teachings for the reasons already noted in the previous rejection paragraphs. As to claim 10, it would seem that Harsel is suggesting or rendering obvious the alternative use of equal width strips if desired – note esp. page 2, lines 96-101.

9. Applicant's arguments filed 5-6-2004 have been fully considered but they are not persuasive.

First, it should be noted that the rejections over the references to Katagiri and Yoshida have been withdrawn as these references specifically seem to require an

overlap joint rather than a butt joint as now claimed. Further, as argued by applicant, the angle beta in Katagiri would not satisfy the new definition for this angle (particularly that it encompass all the joints). Further, the rejections of the method claims based upon the Deist and Ragan references as primary references have been withdrawn as these references do not form a layered structure which is then wound as now claimed. Finally, the rejection based upon Wild has also been withdrawn as less relevant than the remaining prior art as no specific processing of the strips is shown.

Applicant has argued that the newly defined angle beta being less than 180 degrees is not shown. However, for reasons advanced within the statements of rejection above, it is still considered that the remaining applied references would suggest/render obvious a stagger than covers less than 180 degrees (and even the narrower less than 90 degrees) as claimed and applicant has not specifically or convincingly argued why these remaining references do not teach this/render this obvious. These rejections are therefore still deemed proper and will be maintained.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Geoffrey L. Knable
Primary Examiner
Art Unit 1733

G. Knable
August 6, 2004